Claims

1. An in vitro method for testing the inflammatory effect of a test material comprising introducing a test material comprising or suspected of comprising an inflammatory agent into a system comprising epithelial cells of gastrointestinal, respiratory or genitourinary origin which interact with the immune system and cells of the immune system and determining the change in an immunological marker in response to the test material.

2. A method as claimed in claim 1 wherein the cells of the immune system are peripheral blood mononuclear cells.

3. A method as claimed in claim 1 wherein the cells which interact with the immune system and the immune system cells are of matched origin.

4. A method as claimed in claim 3 wherein the cells of the immune system are of gastrointestinal, respiratory or genitourinary origin.

5. A method as claimed in any preceding claim wherein the cells which interact with the immune system are in the form of a monolayer.

6. A method as claimed in any preceding claim wherein the cells which interact with the immune system are on a microporous support.

7. A method for testing the inflammatory effect of a test material comprising the steps of: -

placing a microporous support having a layer of epithelial cells of gastrointestinal, respiratory or genitourinary origin thereon which interact with the immune system in contact with a nutrient medium in a culture well;

introducing a composition containing cells of the immune system to the medium;

subsequently introducing a test material comprising or suspected of comprising an inflammatory agent to either one or both cells; and

determining the change in an immunological marker in response to the test material.

8. A method as claimed in any preceding claim wherein the immunological marker is a cytokine.

9. A method as claimed in claim 8 wherein the cytokine is TNFα.

10. A method as claimed in claim 8 wherein the cytokine is IL8.

11. A method as claimed in any preceding claim wherein the inflammatory effect is an anti-inflammatory effect.

12. A method as claimed in any preceding claim wherein the inflammatory effect is a pro-inflammatory effect.

13. A method as claimed in any preceding claim wherein the test material is a material that is or suspected to be a probiotic material.

14. A method as claimed in any preceding claim wherein the test material includes a strain of Bifidobacterium.

15. A method as claimed in any preceding claim wherein the test material includes a strain of Lactobacillus.